Application No. 10/797,984   Docket No.: 65807-0065
Amendment dated
After Final Office Action of January 8, 2007

AMENDMENTS TO THE CLAIMS

1.   (Currently Amended) A network analysis device for a digital data computer network, comprising: a digitizer which digitally samples analog characteristics of digital communication events between network devices connected to the network independently of packet contents associated with any of the digital communication events, the analog characteristics including a component of at least one of voltage and frequency, the samples taken at least at one of a rate and a resolution greater then is required to minimally detect digital transitions; a system processor which downloads data of the sampled signal events from the digitizer, which analyzes the analog characteristics, and which decodes the signal events, which are digital communications between the devices, based on the data, and wherein the system processor classifies the signal events as digital communications, noise, interference and/or crosstalk, wherein the system processor classifies the signal events as digital communications, noise, interference and/or crosstalk to selectively predict a failure mode.

2 - 12 (Canceled)

13.   (Currently Amended) A method for monitoring the operation of a computer network, comprising:

     digitally sampling analog characteristics of signal events on the network with a digitizer independently of packet contents associated with any of the signal events, the analog characteristics including a component of at least one of voltage and frequency, the sampling taking place at least at one of a rate and a resolution greater then is required to minimally detect digital transitions;

     downloading data arrays of the signal events to a system processor;

     analyzing the data arrays in the system processor to identify the signal events;

     determining analog characteristics of the signal events; and

     decoding the signal events, which are digital communications between network devices, based on the data, to selectively predict a failure mode.

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14.   (Original) A method as described in Claim 13, further comprising

classifying the events as collisions between network devices;

determining transmission start and stop times for colliders in collision signal events.

15.   (Original) A method as described in Claim 13, further comprising locating network devices that improperly react to collisions with other network devices by reference to the start and stop times.

16.   (Original) A method as described in Claim 13, further comprising identifying sources of transmissions on a network by calculating parameters for transmissions from known sources, calculating the parameters for a transmission from an unknown source, and identifying the unknown source based upon the degree to which the parameters match parameters from the known sources.

17.   (Original) A method as described in Claim 13, further comprising classifying the signal events as digital communications, noise, interference and/or crosstalk based on the analog characteristics.

18.   (Original) A method as described in Claim 13, further comprising classifying the signal events as digital communications, noise, interference and/or crosstalk based using parametric analysis of each event.

19.   (Original) A method as described in Claim 13, further comprising simultaneously connecting to multiple links of the network.

20.   (Original) A method as described in Claim 13, further comprising simultaneously connecting to multiple links of a star topology network.

21.   (Original) A method as described in Claim 20, further comprising tagging sampled signal events to identify the link from which the event originated.

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